This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

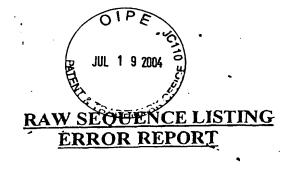
Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.





The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: US

Source:

-Date Processed by STIC:

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,

2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

- 1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>, EFS Submission User Manual ePAVE)
- 2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
- Hand Carry directly to (EFFECTIVE 12/01/03):
 U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
- Federal Express, United Parcel Service, or-other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1803-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03





TI

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/723,365

DATE: 12/15/2003
TIME: 16:39:16

Input Set : A:\pto.ln.txt

```
4 <110> APPLICANT: van den Boom, Dirk
          B"cker, Sebastian
  7 <120> TITLE OF INVENTION: FRAGMENTATION-BASED METHODS AND SYSTEMS
          FOR SEQUENCE VARIATION DETECTION AND DISCOVERY
  11 <130> FILE REFERENCE: 24736-2073
> 13 <140> CURRENT APPLICATION NUMBER: US/10/723,365
  14 <141> CURRENT FILING DATE: 2003-11-26
  16 <150> PRIOR APPLICATION NUMBER: US 60/429,895
  17 <151> PRIOR FILING DATE: 2002-11-27
  19 <160> NUMBER OF SEQ ID NOS: 85
  21 <170> SOFTWARE: FastSEQ for Windows Version 4.0
                                                                 Does Not Comply
  23 <210> SEQ ID NO: 1
                                                                 Corrected Diskette Needed
  24 <211> LENGTH: 7
  25 <212> TYPE: PRT
  26 <213> ORGANISM: Artificial Sequence
  28 <220> FEATURE:
  29 <223> OTHER INFORMATION: Renin cleavage site
  31 <400> SEQUENCE: 1
  32 Pro Phe His Leu Leu Val Tyr
  33 1
  36 <210> SEQ ID NO: 2
  37 <211> LENGTH: 5
  38 <212> TYPE: PRT
  39 <213> ORGANISM: Artificial Sequence
  41 <220> FEATURE:
  42 <223> OTHER INFORMATION: Factor Xa cleavage site
  44 <221> NAME/KEY: VARIANT
  45 <222> LOCATION: 5
  46 <223> OTHER INFORMATION: Xaa = Any Amino Acid Except Pro or Arg
  48 <400> 2
  49 Ile Glu Gly Arg Xaa
  50 1
  53 <210> SEQ ID NO: 3
  54 <211> LENGTH: 5
  55 <212> TYPE: PRT
  56 <213> ORGANISM: Artificial Sequence
  58 <220> FEATURE:
  59 <223> OTHER INFORMATION: Factor Xa cleavage site
> 61 <221> NAME/KEY: VARIANT
  62 <222> LOCATION: 5
  63 <223> OTHER INFORMATION: Xaa = Any Amino Acid Except Pro or Arg
> 65 <400> 3
> 66 Ile Asp Gly Arg Xaa
```

DATE: 12/15/2003

TIME: 16:39:16

```
Input Set : A:\pto.ln.txt
                 Output Set: N:\CRF4\12112003\J723365.raw
 67 1
 70 <210> SEQ ID NO: 4
 71 <211> LENGTH: 5
 72 <212> TYPE: PRT
 73 <213> ORGANISM: Artificial Sequence
 75 <220> FEATURE:
 76 <223> OTHER INFORMATION: Factor Xa cleavage site
> 78 <221> NAME/KEY: VARIANT
 79 <222> LOCATION: 5
 80 <223> OTHER INFORMATION: Xaa = Any Amino Acid Except Pro or Arg
> 82 <400> 4
> 83 Ala Glu Gly Arg Xaa
  84 1
  87 <210> SEQ ID NO: 5
  88 <211> LENGTH: 5
  89 <212> TYPE: PRT
  90 <213> ORGANISM: Artificial Sequence
  92 <220> FEATURE:
  93 <223> OTHER INFORMATION: Collagenase cleavage site
> 95 <221> NAME/KEY: VARIANT
  96 <222> LOCATION: 2, 5
  97 <223> OTHER INFORMATION: Xaa = Any Amino Acid
> 99 <400> 5
> 100 Pro Xaa Gly Pro Xaa
  101 1
  104 <210> SEQ ID NO: 6
  105 <211> LENGTH: 49
  106 <212> TYPE: DNA
  107 <213> ORGANISM: Artificial Sequence
  109 <220> FEATURE:
  110 <223> OTHER INFORMATION: Forward primer for base-specific cleavage
  112 <400> SEQUENCE: 6
  113 cagtaatacg actcactata gggagaagge teeceageaa gaeggaett
                                                                          49
  115 <210> SEQ ID NO: 7
  116 <211> LENGTH: 28
  117 <212> TYPE: DNA
  118 <213> ORGANISM: Artificial Sequence
  120 <220> FEATURE:
  121 <223> OTHER INFORMATION: Reverse primer for base-specific cleavage
  123 <400> SEQUENCE: 7
                                                                          28
  124 aggaagagag cgcctcggca aagtacac
  126 <210> SEQ ID NO: 8
  127 <211> LENGTH: 340
  128 <212> TYPE: DNA
  129 <213> ORGANISM: Artificial Sequence
  131 <220> FEATURE:
  132 <223> OTHER INFORMATION: Amplicon for base-specific cleavage
  134 <400> SEQUENCE: 8
  135 gggagaaggc tccccagcaa gacggacttc ttcaaaaaca tcatgaactt catagacatt 60
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/723,365

DATE: 12/15/2003

TIME: 16:39:16

```
Input Set : A:\pto.ln.txt
                 Output Set: N:\CRF4\12112003\J723365.raw
 136 gtggccatca ttccttattt catcacgctg ggcaccgaga tagctgagca ggaaggaaac 120
 137 cagaagggcg agcaggccac ctccctggcc atcctcaggg tcatccgctt ggtaagggtt 180
 138 titagaatet teaagetete eegecaetet aagggeetee agateetggg ceagaceete 240
 139 aaagctagta tgagagagct agggctgctc atctttttcc tcttcatcgg ggtcatcctg 300
 140 ttttctagtg cagtgtactt tgccgaggcg ctctcttcct
 142 <210> SEQ ID NO: 9
 143 <211> LENGTH: 23
 144 <212> TYPE: DNA
 145 <213> ORGANISM: Artificial Sequence
 147 <220> FEATURE:
 148 <223> OTHER INFORMATION: Forward primer for partial cleavage
 150 <221> NAME/KEY: modified_base
 151 <222> LOCATION: 1
  152 <223> OTHER INFORMATION: Biotinylated
> 154 <400> 9
                                                                         23
  155 cccagtcacg acgttgtaaa acg
  157 <210> SEQ ID NO: 10
  158 <211> LENGTH: 23
  159 <212> TYPE: DNA
  160 <213> ORGANISM: Artificial Sequence
  162 <220> FEATURE:
  163 <223> OTHER INFORMATION: Reverse primer for partial cleavage
  165 <400> SEQUENCE: 10
                                                                         23
  166 agcggataac aatttcacac agg
  168 <210> SEQ ID NO: 11
  169 <211> LENGTH: 117
  170 <212> TYPE: DNA
  171 <213> ORGANISM: Artificial Sequence
  173 <220> FEATURE:
  174 <223> OTHER INFORMATION: Amplicon for partial cleavage
  176 <400> SEQUENCE: 11
  177 cccagtcacg acgttgtaaa acgtccaggg aggactcacc atgggcattt gattgcagag 60
  178 cageteegag tecateeaga getteetgea gteacetgtg tgaaattgtt ateeget
  180 <210> SEQ ID NO: 12
  181 <211> LENGTH: 21
  182 <212> TYPE: DNA
  183 <213> ORGANISM: Artificial Sequence
  185 <220> FEATURE:
  186 <223> OTHER INFORMATION: Reference sequence
> 188 <221> NAME/KEY: misc_feature
  189 <222> LOCATION: 11
  190 <223> OTHER INFORMATION: n = C or A
> 192 <221> misc feature
  193 <222> LOCATION: 1, 2, 3, 8, 9, 10, 12, 13, 14, 19, 20, 21
  194 <223> OTHER INFORMATION: n = A, T, C or G
> 196 <400> 12
                                                                          21
> 197 nnnactgnnn nnnntgacnn n
  199 <210> SEQ ID NO: 13
  200 <211> LENGTH: 583
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/723,365

```
Input Set : A:\pto.ln.txt
                                      Output Set: N:\CRF4\12112003\J723365.raw
   201 <212> TYPE: DNA
   202 <213> ORGANISM: Artificial Sequence
   204 <220> FEATURE:
   205 <223> OTHER INFORMATION: CETP Amplicon
   207 <400> SEQUENCE: 13
   208 cttcagtgct cacaccgacc ctatgagtgg ggcggtcaaa ctgtccccat tttacacaca 60
   209 gggaaactta gtgaatggca aggctgggtt tgagcccagc tctattgccc ccaaagataa 120
   210 ggctccattc cctgctccat ttcccaggca tagggacttg tagggggctg gaaccccagg 180
   211 atcaactctg ggctcagagg gccccagcaa taagtgactg ttgattactc ctgatcccaa 240
   212 agetgaette aggeaagete ettggaggte geageceett ettgetatge eeagtggeaa 300
                                                                                                                                       Mandatory 2 for 13087, mospone.

Mandatory 2 for Must be posse.

Mass ponte for must be posse.

Mandatory 2 for Must be posse.
   213 tgatgttcat aatcccactc ctcagtgcag ggttccacta agaacccatg atctcctacc 360
   214 tcaaatggac ctcatgcttt ctgagtaagc ctccctcagc tttctggtca cctcactccc 420
   215 eccacccact gcaatgactt cttcaggcct teectgccat ceteaaatct ecagetgeec 480
   216 ectectgtet acettecact teceteteca cacacaacet gettaccaga gagetgagea 540
    217 gagecaceaa cagaacttee ecceaegte getgeteeca gte
   219 <210> SEQ ID NO: 14
    220 <211> LENGTH: 483
    221 <212> TYPE: DNA
    222 <213> ORGANISM: Mycobacterium abscessus
             <300> PUBLICATION INFORMATION:
    225 (308) DATABASE ACCESSION NO: EMBL Accession No. AJ536038
> 227 <300> PUBLICATION INFORMATION: 14
    228 acgggtgagt aacacgtggg tgatctgccc tgcactctgg gataagcctg ggaaactggg 60
    229 tetaataceg gataggacea cacactteat ggtgagtggt geaaagettt tgeggtgtgg 120
    230 gatgagcccg cggcctatca gcttgttggt ggggtaatgg cccaccaagg cgacgacggg 180
    231 tagecggeet gagagggtga eeggeeacae tgggaetgag ataeggeeca gaeteetaeg 240
    232 ggaggcagca gtggggaata ttgcacaatg ggcgcaagcc tgatgcagcg acgccgcgtg 300
    233 agggatgacg gccttcgggt tgtaaacctc tttcagtagg gacgaagcga aagtgacggt 360
    234 acctacagaa gaaggaccgg ccaactacgt gccagcagcc gcggtaatac gtagggtccg 420
    235 agcgttgtcc ggaattactg ggcgtaaaga gctcgtaggt ggtttgtcgc gttgttcgtg 480
    246 <2300> PUBLICATION INFORMATION:

246 <2300> PUBLICATION INFORMATION: 15

247 acgggtgagt aacacgtggg caatctgccc tgcacttcgg gataagcctg ggaaactggg 60

248 tctaataccg gataggacct caagacgcat gtcttctggt ggaaagcttt tgcggtgtgg 120

249 gatgggcccg cggcctatca gcttgttggt ggggtgacgg cctaccaagg cgacgacgon 100

250 tagccggcct gagagggtgt ccggccacac tgggactgag atacggcca 70

251 ggaggcagca gtggggaata ttgcacaatg ggcgcaaacc 100

252 ggggatgacg gcttcgggt tgtaaacctc 100

253 cggattgacg gtaggtgaan

254 acgtaggara
> 246 <300> PUBLICATION INFORMATION: 15
     254 acgtagggtg cgagcgttgt ccggaattac tgggcgtaaa gagctcgtag gtggtttgtc 480
     255 gcgttgttcg tgaaa
     257 <210> SEQ ID NO: 16
     258 <211> LENGTH: 495
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/723,365

DATE: 12/15/2003

TIME: 16:39:16

DATE: 12/15/2003

TIME: 16:39:16

```
Output Set: N:\CRF4\12112003\J723365.raw
                                                              -SAME erron
  259 <212> TYPE: DNA
  260 <213> ORGANISM: Mycobacterium celatum
  262 <300> PUBLICATION INFORMATION:
263 (308) DATABASE ACCESSION NO: EMBL Accession No. AJ536040 > 265 (300) PUBLICATION INFORMATION: 16
  266 acgggtgagt aacacgtggg tgatctgccc tgcacttcgg gataagcttg ggaaactggg 60
  267 totaataccg gataggacca tgggatgcat gtottgtggt ggaaagcttt tgcggtgtgg 120
  268 gatgggcccg cggcctatca gcttgttggt ggggtgatgg cctaccaagg cgacgacggg 180
  269 tageeggeet gagagggtgt eeggeeacae tgggaetgag ataeggeeca gaeteetaeg 240
  270 ggaggcagca gtggggaata ttgcacaatg ggcgcaagcc tgatgcagcg acgccgcgtg 300
  271 ggggatgacg gccttcgggt tgtaaacctc tttcaccatc gacgaagctg ccggttttcc 360
  272 ggtggtgacg gtaggtggag aagaagcacc ggccaactac gtgccagcag ccgcggtaat 420
  273 acgtagggtg cgagcgttgt ccggaattac tgggcgtaaa gagctcgtag gtggtttgtc 480
  274 gcgttgttcg tgaaa
  276 <210> SEQ ID NO: 17
277 <211> LENGTH: 483
                                                             some error
  278 <212> TYPE: DNA
  279 <213> ORGANISM: Mycobacterium fortuitum
  281 <300> PUBLICATION INFORMATION:
  282 308 DATABASE ACCESSION NO: EMBL Accession No. AJ536039
> 284 <300> PUBLICATION INFORMATION: 17
  285 acgggtgagt aacacgtggg tgatctgccc tgcactttgg gataagcctg ggaaactggg 60
  286 totaataccg aatatgacca cgcgcttcat ggtgtgtggt ggaaagcttt tgcggtgtgg 120
  287 gatgggcccg cggcctatca gcttgttggt ggggtaatgg cctaccaagg cgacgacggg 180
  288 tagccggcct gagagggtga ccggccacac tgggactgag atacggccca gactcctacg 240
  289 ggaggcagca gtggggaata ttgcacaatg ggcgcaagcc tgatgcagcg acgccgcgtg 300
  290 agggatgacg gccttcgggt tgtaaacctc tttcaatagg gacgaagcgc aagtgacggt 360
  291 acctatagaa gaaggaccgg ccaactacgt gccagcagcc gcggtaatac gtagggtccg 420
  292 agcgttgtcc ggaattactg ggcgtaaaga gctcgtaggt ggtttgtcgc gttgttcgtg 480
  293 aaa
  295 <210> SEQ ID NO: 18
  296 <211> LENGTH: 495
                                                                   -SAME erron
  297 <212> TYPE: DNA
  298 <213> ORGANISM: Mycobacterium gordonae
  300 <300> PUBLICATION INFORMATION:
301 (308) DATABASE ACCESSION NO: EMBL Accession No. AJ536042 > 303 (300) PUBLICATION INFORMATION: 18
  304 acgggtgagt aacacgtggg taatctgccc tgcacatcgg gataagcctg ggaaactggg 60
  305 totaataccg aataggacca caggacacat gtootgtggt ggaaagettt tgcggtgtgg 120
  306 gatgggcccg cggcctatca gcttgttggt ggggtgatgg cctaccaagg cgacgacggg 180
   307 tagcoggect gagagggtgt coggocacae tgggaetgag ataeggeeca gacteetaeg 240
  308 ggaggcagca gtggggaata ttgcacaatg ggcgaaagcc tgatgcagcg acgccgcgtg 300
  309 ggggatgacg gccttcgggt tgtaaacctc tttcaccatc gacgaaggtc cgggttttct 360
  310 cgggctgacg gtaggtggag aagaagcacc ggccaactac gtgccagcag ccgcggtaat 420
  311 acgtagggtg cgagcgttgt ccggaattac tgggcgtaaa gagctcgtag gtggtttgtc 480
  312 gcgttgttcg tgaaa
  314 <210> SEQ ID NO: 19
```

RAW SEQUENCE LISTING

Input Set : A:\pto.ln.txt

PATENT APPLICATION: US/10/723,365

315 <211> LENGTH: 495 316 <212> TYPE: DNA RAW SEQUENCE LISTING ERROR SUMMARY PATENT APPLICATION: US/10/723,365

DATE: 12/15/2003 TIME: 16:39:17

Input Set : A:\pto.ln.txt

Output Set: N:\CRF4\12112003\J723365.raw

ase Note: of n and/or Xaa have been detected in the Sequence Listing. Please review the uence Listing to ensure that a corresponding explanation is presented in the <220> <223> fields of each sequence which presents at least one n or Xaa. #:2; Xaa Pos. 5 #:3; Xaa Pos. 5 / #:4; Xaa Pos. 5 V #:4; Add Pos. 3,5 #:5; Xaa Pos. 2,5 #:12; N Pos. 1,2,3,8,9,10,11,12,13,14,19,20,21 #:32; N Pos. 821 #:45; N Pos. 123 #:46; N Pos. 174,179,317 #:47; N Pos. 285,286 #:48; N Pos. 131 #:49; N Pos. 47,50,51,52,111,135,185,198,253,359 #:50; N Pos. 131 #:51; N Pos. 228,230,235,236,240,243,245 #:52; N Pos. 84,265,269 #:53; N Pos. 136,385 #:54; N Pos. 76 #:55; N Pos. 157 #:56; N Pos. 103 #:57; N Pos. 31 #:58; N Pos. 211 #:59; N Pos. 77 #:60; N Pos. 131,239,254,283 #:61; N Pos. 100 #:62; N Pos. 228,341 #:63; N Pos. 300,696,741,771 #:64; N Pos. 378 #:65; N Pos. 137 #:66; N Pos. 249 #:67; N Pos. 80,206,295,315,317,318,373,400,479 #:68; N Pos. 48,154 #:69; N Pos. 205,277,304 #:70; N Pos. 117 #:71; N Pos. 37,329,350 #:72; N Pos. 653 #:73; N Pos. 257 #:74; N Pos. 98,114 #:75; N Pos. 21,61,83,84,85,86 #:78; N Pos. 183,256,284,327 #:79; N Pos. 279 #:80; N Pos. 44 #:81; N Pos. 346 #:82; N Pos. 291 #:83; N Pos. 260

#:84; N Pos. 257

Input Set : A:\pto.ln.txt

```
3 M:270 C: Current Application Number differs, Replaced Current Application Number
4 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
8 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
9 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
1 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
5 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:3
6 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
8 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
2 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
3 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
5 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
9 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:5
00 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
50 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
54 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9
88 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
92 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:12
96 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:12 97 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
27 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:14
46 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:15
65 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:16
84 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:17 03 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:18 22 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:19
41 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:20
60 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:21
79 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:22 98 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:23 17 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:24
36 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:25
03 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:29
70 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:32
84 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:780
61 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
65 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:45
68 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:120
83 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
87 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:46
91 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:46
94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:120
41 Repeated in SeqNo=46
09 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
13 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:47
18 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:240
31 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
35 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:48
38 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:120
```

Input Set : A:\pto.ln.txt

```
53 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
57 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:49
61 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:49
65 M: 258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:49
69 M: 258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:49
70 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0
41 Repeated in SeqNo=49
88 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
92 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:50
95 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:120
10 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
14 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:51
18 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:180
41 Repeated in SeqNo=51
31 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
35 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:52 39 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:52
41 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:60
41 Repeated in SeqNo=52
57 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
61 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID\pm:53 65 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID\pm:53
68 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:120
41 Repeated in SeqNo=53
83 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
87 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:54
89 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54 after pos.:60
005 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
009 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:55
012 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:120
026 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
030 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:56
032 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:60
049 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
053 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:57
054 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:0
070 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
074 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:58
078 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:180
091 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
095 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:59
097 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:60
112 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
116 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:60
120 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:60
124 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:60
128 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:60
131 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:120
41 Repeated in SegNo=60
```

Input Set : A:\pto.ln.txt

```
145 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
149 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61
151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:60
166 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
170 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:62
174 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:62
178 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:180
41 Repeated in SeqNo=62
192 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
196 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
200 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
204 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
209 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:240
41 Repeated in SeqNo=63
228 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
232 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:64
239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:360
251 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
255 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:65
258 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:120
272 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
276 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:66
281 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:240
292 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
296 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:67
300 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:67
302 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67 after pos.:60
41 Repeated in SeqNo=67
320 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
324 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:68 328 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:68
329 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:68 after pos.:0
41 Repeated in SeqNo=68
345 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
349 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:69 353 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:69
357 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:69
361 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69 after pos.:180
 41 Repeated in SeqNo=69
 374 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
 378 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:70
 380 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:70 after pos.:60
 395 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
 399 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:71
 408 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:0
 41 Repeated in SeqNo=71
 424 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
 439 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:600
 450 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
```

VERIFICATION SUMMARY DATE: 12/15/2003
PATENT APPLICATION: US/10/723,365 TIME: 16:39:17

Imput Set : A:\pto.ln.txt

```
459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73 after pos.:240
476 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
486 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:74 after pos.:60
501 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
514 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:0
41 Repeated in SeqNo=75
563 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
583 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
604 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
625 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
646 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
667 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
688 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
```

Input Set : A:\pto.ln.txt

